UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER FOR PATENTS
P.O. Box 1450
Alexandria, Virginia 22313-1450
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/705,940	11/13/2003	Kenneth J. Klein	THA2256-014	6574

8698 7590 09/04/2007

STANDLEY LAW GROUP LLP
495 METRO PLACE SOUTH
SUITE 210
DUBLIN, OH 43017

EXAMINER	
HYUN, PAUL SANG HWA	
ART UNIT	**PAPER NUMBER**
1743	

MAIL DATE	DELIVERY MODE
09/04/2007	PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)	
	10/705,940	KLEIN ET AL.	
	Examiner	Art Unit	
	Paul S. Hyun	1743	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on *28 June 2007*.

2a)☒ This action is **FINAL**. 2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) *1-11 and 13-15* is/are pending in the application.

4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) *1-11 and 13-15* is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

a)☐ All b)☐ Some * c)☐ None of:

1.☐ Certified copies of the priority documents have been received.

2.☐ Certified copies of the priority documents have been received in Application No. _____.

3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1) ☒ Notice of References Cited (PTO-892)
2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
3) ☐ Information Disclosure Statement(s) (PTO/SB/08) Paper No(s)/Mail Date _____.
4) ☐ Interview Summary (PTO-413) Paper No(s)/Mail Date. _____ .
5) ☐ Notice of Informal Patent Application
6) ☐ Other: _____.

DETAILED ACTION

REMARKS

Claims 1-11 and 13-15 are currently pending. Applicants amended claims 1, 3-5, 8, 11 and 13.

The amended Abstract has been acknowledged. Consequently, the objection to the Abstract is hereby withdrawn.

The claim objection cited in the previous Office action has been withdrawn in light of the amendments.

The claim rejection under 35 U.S.C. section 112 cited in the previous Office action have been withdrawn in light of the amendments.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

> (a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

Claims **1, 5-7, 11, 14 and 15** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. (US 5,698,179) in view of Smith (US 5,762,120).

Neumeyer et al. disclose a method and a system for isolating a sample eluted from a high-pressure liquid chromatography (HPLC) column (see lines 30-40, col. 16). The method comprises the step of collecting a flow stream of the chromatography column in a test tube, evaporating the solvent to isolate the sample, and re-solvating the sample in a solvent. The method disclosed by the reference differs from the claimed

method in that the reference does not disclose the step of attaching a vessel extender to the test tube.

Smith discloses a threaded funnel that attaches to a threaded vessel (see Fig. 6). The threads provide a stable and tight coupling between the funnel and the vessel (see lines 19-23, col. 1). In light of the disclosure of Smith and the fact that the use of a funnel for collecting a fluid sample is well known in the art, it would have been obvious to provide a threaded funnel secured to threaded test tubes when conducting the method disclosed by Neumeyer et al. The threaded funnel/test tubes would facilitate the collection of the elution from the chromatography column in a secure manner.

With respect to claims 5 and 15, it would have been obvious to one of ordinary skill in the art to provide an automated means such that it automates the attachment of the funnel to the test tube. *See In re Venner*, 262 F.2d 91, 95, 120 USPQ 193, 194 (CCPA 1958), a case in which the Court held that broadly providing an automatic or mechanical means to replace a manual activity which accomplished the same result is not sufficient to distinguish over the prior art.

With respect to claim 7, although Neumeyer et al. do not explicitly disclose how the solvent is evaporated, it is well-known in the art that one way to evaporate a solvent is to heat it in a reduced atmospheric pressure. It would have been obvious to one of ordinary skill in the art to evaporate the solvent by heating it.

Claims **2 and 8-10** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. in view of Smith as applied to claims 1, 5-7, 11, 14 and 15, and further in view of Natelson (US 3,635,394).

Neither Neumeyer et al. nor Smith disclose the use of a rack.

Natelson discloses the use of test tubes to collect fractions from a chromatography column wherein the test tubes are supported by a test tube rack (see lines 10-13, col. 5). In light of the disclosure of Natelson, it would have been obvious to one of ordinary skill in the art to place the test tube in a rack when conducting the modified method disclosed by Neumeyer et al. and Smith so that the test tube does not have to be manually held while collecting the elution.

With respect to claim 9, it is well known in the art to rinse the funnel with a solvent when a funnel is used facilitate the collection of a solute sample. This step ensures that no residue is remained on the funnel. Therefore, it would have been obvious to one of ordinary skill in the art to rinse the funnel prior to and after evaporating the solvent to ensure that all of the sample is transferred to the test tube.

Claims **3 and 13** are rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. in view of Smith as applied to claims 1, 5-7, 11, 14 and 15, and further in view of Marshall et al. (US 4,209,611).

Neither Neumeyer et al. nor Smith disclose a balance or the step of weighing the sample to determine the amount of sample collected.

Marshall et al. disclose a method for determining the sample collected from the elution of a chromatographic column, the method comprising the step of collecting the elution in a container, evaporating the solvent, and weighing the dried sample (see lines 35-60, col. 7). Although the reference does not explicitly disclose that the weight is determined by subtracting the weight of the empty container from the weight of the container plus the dried sample, it is well known in the art that sample weight determinations are made in this manner.

In light of the disclosure of Marshall et al., it would have been obvious to one of ordinary skill in the art to provide a balance and weigh the dried sample isolated by the modified system and method disclosed by Neumeyer et al. and Smith prior to re-solvating the dried sample so that the amount of sample collected can be determined.

Claim **4** is rejected under 35 U.S.C. 103(a) as being unpatentable over Neumeyer et al. in view of Smith as applied to claims 1, 5-7, 11, 14 and 15, and further in view of Nova et al. (US 5,961,923).

Neither Neumeyer et al. nor Smith disclose the step of labeling the test tube.

Nova et al. disclose the use of bar codes for tagging chromatography tubes (see lines 40-47, col. 44). In light of the disclosure of Nova et al., it would have been obvious to one of ordinary skill in the art to label the test tube used in the modified method disclosed by Neumeyer et al. and Smith using bar codes so that the content of the tube can be easily identified.

Response to Arguments

Applicants' arguments with respect to the claims have been considered but are moot in view of the new grounds of rejection. Nonetheless, Applicants' argument pertinent to the cited references will be addressed.

Applicants argue that the claimed invention is patentably distinct from the cited references because the cited references do not disclose the step of subjecting an extended vessel to an evaporation process. This argument is not persuasive because it would have been obvious to one of ordinary skill in the art to maintain the funnel secured to the test tube during the evaporation process so that any residue remained on the funnel after the evaporation process can be washed into the test tube. Moreover, it would have been obvious to maintain the funnel secured to the test tube during the evaporation process out of convenience, or to minimize the disturbance of the sample stored in the test tube.

Conclusion

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Jones, Jr. et al. (US 5,849,249) disclose a funnel comprising threads for securely connecting to a solid phase extraction apparatus (see lines 5-30, col. 5).

Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul S. Hyun whose telephone number is (571)-272-8559. The examiner can normally be reached on Monday-Friday 8AM-4:30PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on (571)-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see http://pair-direct.uspto.gov. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

PSH
8/28/07

Jill Warden
Supervisory Patent Examiner
Technology Center 1700